

**Evaluate the expression.**

1.  $16 \div 8 \cdot 5$

2.  $7^2 - 24 \div 3$

3.  $5 + 1.2 \div 0.3$

4.  $18 \div 6 + 4 \cdot 3$

5.  $-13 - 15 \div 5 + 9$

6.  $\frac{2}{3} \cdot 3^2 - 5$

7.  $8(6 - 2) + 4$

8.  $28 - 3(4 + 5)$

9.  $1.2 \cdot 5 - 6 \div 3$

10.  $(11 + 15) \div 13$

11.  $35 - 3^2 \cdot 2$

12.  $\frac{4}{5}(3 \cdot 20) - 17$

**Evaluate the expression.**

13.  $3x^4 - 5$  when  $x = 5$

14.  $8m^3 \div 6$  when  $m = 3$

15.  $200 - 3y^2$  when  $y = 8$

16.  $5c^2 - 2c$  when  $c = 9$

17.  $3 \cdot 18t^2$  when  $t = \frac{1}{3}$

18.  $\frac{42}{n} + n$  when  $n = 6$

19.  $7(x + 5)$  when  $x = 10$

20.  $\frac{5a}{a - 6}$  when  $a = 8$

21.  $\frac{4d^2}{d + 1}$  when  $d = 3$

- 22.** Was the expression evaluated correctly using the order of operations? If not, find and correct the error.

$$80 - \frac{1}{3}(15)^2 = 80 - 5^2 = 80 - 25 = 55$$

- 23. Tournament** During a bowling tournament, you bowled three games with scores of 110, 130, and 129, respectively. Your average bowling score is given by  $\frac{110 + 130 + 129}{3}$ . What is your average score?

- 24. Painting** Three weeks ago, an art supply store started selling a paint kit for 75% of the original price. Now the kit is 15% off of the sale price. The expression  $0.75x - 0.15(0.75x)$  represents the current price of the paint kit where  $x$  is the kit's original price (in dollars). Find the current price of the kit if it originally cost \$48.

- 25. Crown Molding** You are decorating the perimeter of the ceiling of your living room with crown molding. The expression  $2x + 2y$  represents the total amount of molding you need where  $x$  is the width of the room (in feet) and  $y$  is the length of the room (in feet). Find the total amount of wood you need if the room is 11 feet wide and 10.5 feet long.

- 26. Core Sample** Before a structure is built on a plot of land, it is sometimes necessary to test the surface beneath the plot of land to determine its integrity. So, it may be necessary to take a core sample which is cylindrical in shape. Find the volume of the core sample shown by using the expression  $\pi r^2 h$  where  $r$  is the radius (in inches) and  $h$  is the height (in inches) of the cylinder. Use 3.14 for  $\pi$ .

